

# Young Adult Cancer in Wyoming

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Wyoming Department of Health



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### **Young Adult Cancer in Wyoming**

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Public Health Division

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## **INTRODUCTION**

In the United States there are approximately 70,000 adolescents and young adults between the ages of 15-39 diagnosed with cancer every year. (*National Cancer Institute at the National Institutes of Health*). That equals roughly one every eight minutes. There are an estimated one million survivors of cancer living in the young adult population today.

Young adult cancer is different from cancer in other age groups in almost every way. People diagnosed in this group may present with cancers traditionally found in children or in older adults, but the biology, life challenges and long-term effects that accompany cancers in this group differ greatly from those in any other age range. Their responses to treatment may vary because of naturally occurring hormonal and biological changes during these years. Concerns related to fertility, body image, cognitive function, and late treatment effects, coupled with the complex issues surrounding education, employment, and therefore insurance are more pronounced in this age group than in any other. Often these topics are not taken into consideration or acknowledged in full until after treatment has begun. Additionally, because this age group is outside the traditionally recommended screening ages, even symptomatic young adults face low clinical suspicion for cancer which leads to delayed diagnoses.

Hospitals and providers are rarely set up to address the psychosocial, medical, and biological needs of young adult cancer patients. A particular hospital or oncology practice may only see one or two young adult patients in a year, making it difficult to find a provider who understands the implications of a cancer diagnosis in this unique age

group. The effect of cancer treatment on fertility is a concern unique to young adult cancer survivors that is often not well-understood or discussed by oncology providers, who report lack of time, knowledge and discomfort with the topic. (*US Natl Library of Medicine, J Natl Compr Canc Netw. 2013, Jan 1;11(1):71-7 “Optimizing Fertility Preservation Practices for Adolescent and Young Adult Cancer Patients.” Johnson RH, Kroon L.*) In contrast to other age groups, survival rates for young adults have not improved since the 1970s. (*Critical Mass – AYA Cancer group*).

### **ALL CANCER SITES**

Nationally, adolescents and young adults are approximately six times more likely to be diagnosed with cancer than children under the age of 15 (*National Cancer Institute at the National Institutes of Health*). The most common types of cancer seen in adolescents and young adults are lymphoma, leukemia, germ cell tumors (including testicular cancer), melanoma, central nervous system tumors, sarcomas, breast, cervical, liver, thyroid, and colorectal cancer.

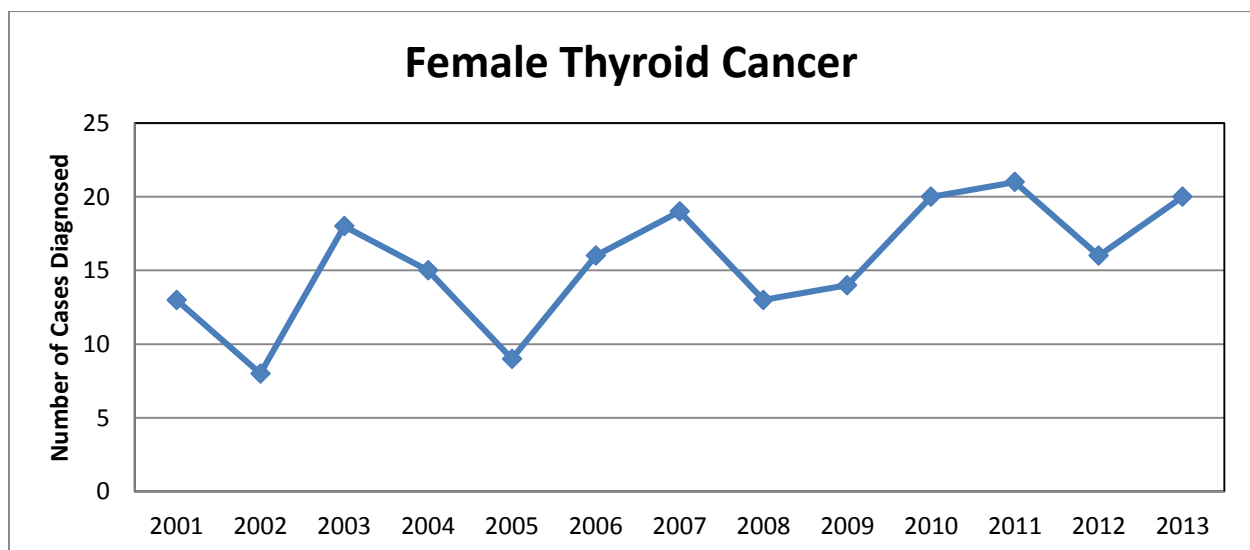
In 2013, the incidence rate for cancer in Wyoming residents between the ages of 15 to 39 years of age was 67.15/100,000, with a total of 127 cases of cancer diagnosed. Nearly twice the number of cases occurred in females (82) as in males (45). The most common cancers diagnosed in this age group in Wyoming were cancer of the thyroid (20 cases), cancer of the testis (18 cases), breast cancer (13 cases), and melanoma (11 cases). The cancer mortality rate for this age group was 7.15/100,000, with fourteen

deaths due to cancer in 2013. Mortality was split almost evenly with eight deaths in males and six in females.

## **THYROID CANCER**

In 2013 in Wyoming there were twenty cases of thyroid cancer diagnosed in the young adult age group (15-39). All cases occurred in female residents, which is not remarkable as cancer of the thyroid is more common in women, nationally. Thyroid cancer is very treatable and led to no deaths in Wyoming in 2013. Over the years, the number of cases of thyroid cancer in young adults has fluctuated between a low of eight cases in 2002 to a high of 21 cases in 2011 (Figure 1). The five-year relative survival rate for young adult females with thyroid cancer in Wyoming is 100%.

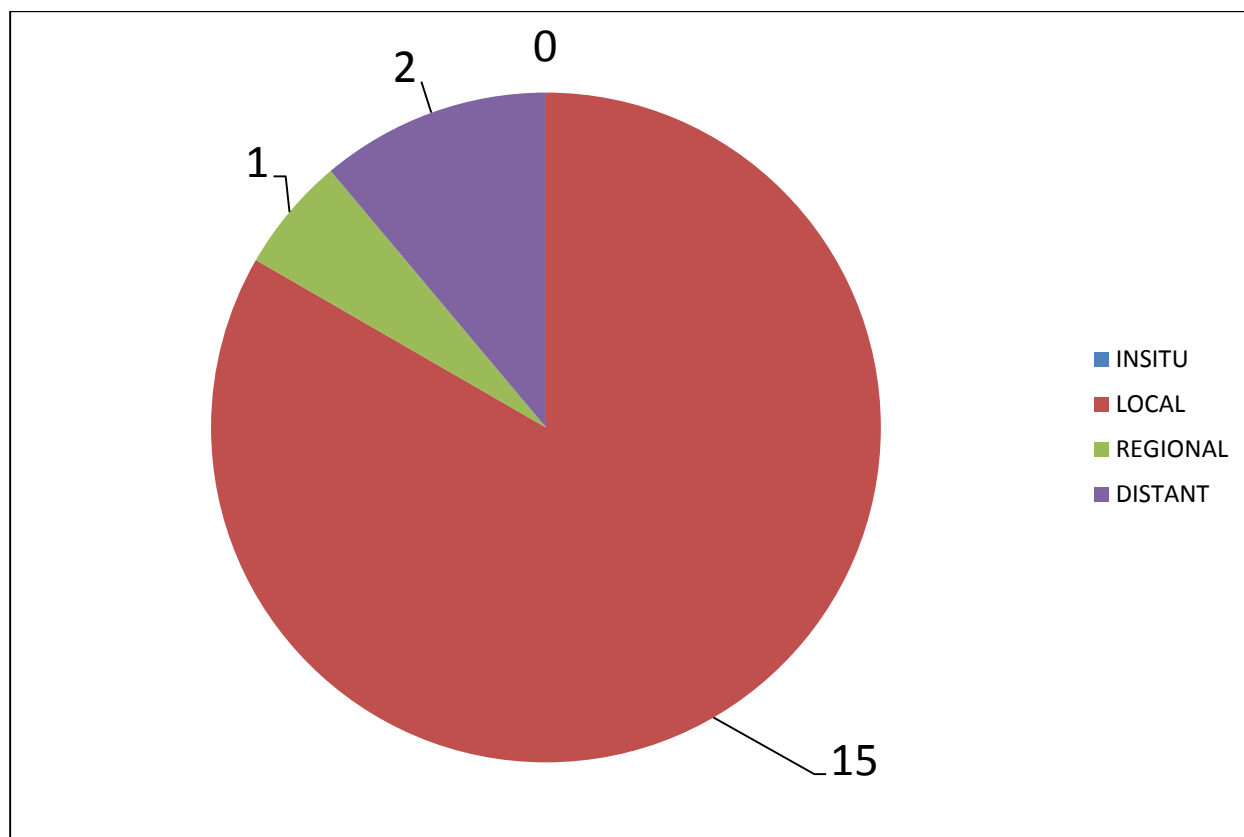
Figure 1. Thyroid Cancer Incidence among Wyoming Females (ages 15-39)



## **CANCER OF THE TESTIS**

Cancer of the testis was the most common form of cancer diagnosed in young men (15-39) in Wyoming in 2013 with eighteen cases diagnosed. Fifteen of these eighteen cancers were diagnosed at the local or early stage (Figure 2). As with thyroid cancer, this type of cancer is highly treatable, usually curable, and tends to strike males in early adulthood or middle age. There was one death due to cancer of the testis in Wyoming in 2013. The five-year relative survival rate in Wyoming for this type of cancer in young adult males stands at 95.0%.

Figure 2. Cancer of the Testis (by stage) among Wyoming Males (Ages 15-39)



## **BREAST CANCER (Female Only)**

Breast cancer is the most commonly diagnosed cancer in Wyoming women and the second-most diagnosed cancer overall, second only to prostate cancer in men. In 2013 there were 399 new cases of breast cancer diagnosed in Wyoming women and 74 deaths attributed to breast cancer. Thirteen of the new cases diagnosed were in young adult women with one of the 74 deaths occurring in that group.

Advances in screening and treatment over the last 40 years have positively impacted mortality rates, as mammograms increase the odds of finding breast cancer at an earlier and more curable stage. In 2013, 85% of the cases diagnosed in young adults were diagnosed at the *in situ* or local stage rather than the later regional or distant stages (Figure 3). This is in direct contrast to the experiences of Wyoming women in the 1970's and 80's when approximately 60% were diagnosed with breast cancer at late stages (Figure 4). With the advent of better screening and diagnostic procedures (e.g., mammograms, biopsies), this rate has reversed with over 70% of women diagnosed at the early stages from 2010 to 2013.

Figure 3 – Stage at Diagnosis – 20-2013

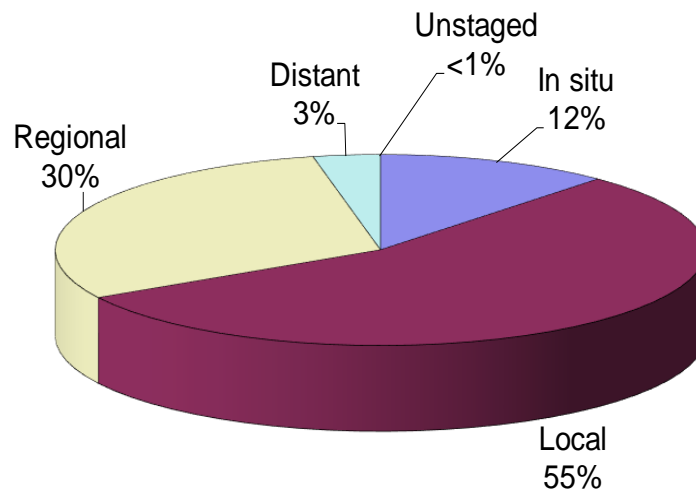
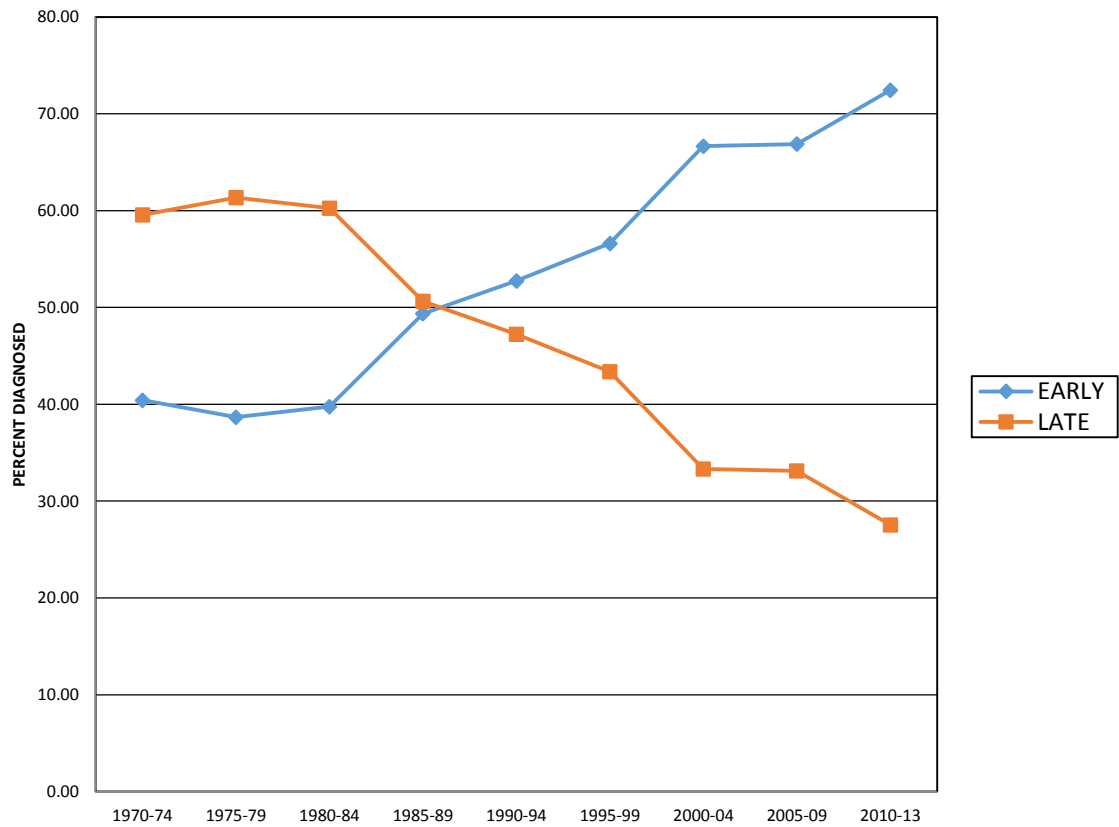


Figure 4 – Early v. Late Stage Diagnosis –Breast - Female only- All ages





## **MELANOMA**

Melanoma is a type of skin cancer and is by far the most dangerous. It is more likely than any other skin cancer to metastasize and spread to other parts of the body if not detected early and treated quickly. In 2013, eleven young adults (seven males and four females) were diagnosed with melanoma. The main risk factor for melanoma is skin damage from UVA and UVB radiation from the sun. Melanoma can often be detected early and treated before it becomes life-threatening. The ability to detect melanoma has resulted in a five-year relative survival rate at 89.7% for young adults. There is, however, a disparity between men and women for early diagnosis (see Table 1). From 2009 through 2013 there were a total of 94 cases of melanoma diagnosed in young adults in Wyoming, almost evenly divided with 46 cases in women and 48 cases in men. Of these cases, 79 (84.0%) were diagnosed in an early and more treatable stage. Diagnosis in early stage made up 98% of the female cases (45 of 46) but only 70.8% of the male cases (34 of 48).

Table 1. Melanoma Diagnosis Stage by Sex 2009-2013 (Ages 15-39)

<b>Melanoma Cases</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
Early Stage	79	34	45
Late Stage	12	11	1
Unknown	3	3	0
<b>TOTAL</b>	<b>94</b>	<b>48</b>	<b>46</b>

Wyoming men and women are at increased risk for melanoma as a direct result of living in Wyoming. The earth's atmosphere is thinner at higher elevations, resulting in more UVA and UVB radiation reaching the earth. Specifically, for every 1,000 feet increase in elevation above sea level there is an associated 5% increase in the amount of UVA and UVB radiation that reaches the earth. Wyoming has the second-highest average elevation in the United States, with an average elevation of 6,700 feet. A person who lives in Wyoming is exposed to approximately 33.5% more UVA and UVB radiation than a person living at sea level.

### **EFFORTS IN WYOMING**

The Wyoming Comprehensive Cancer Control Consortium (WCCCC) is the driving force behind Wyoming's collaborative cancer control plan. This group continues to raise awareness of young adult cancers through the Wyoming chapter of Stupid Cancer, the nation's largest support community for this underserved population. Stupid Cancer is a national non-profit organization that empowers young adults affected by cancer which serves as a centralizing force for the young adult cancer support movement. The Stupid Cancer mission is to build community, improve quality of life, and provide meaningful survivorship for anyone affected by young adult cancer. Their charter is to ensure that age-appropriate resources are made available to everyone affected by young adult cancer, enabling them to get past cancer and "get busy living."

## **RESOURCES**

### **Wyoming Comprehensive Cancer Control Consortium**

The Wyoming Comprehensive Cancer Control Consortium, through the Wyoming Cancer Control Plan 2011-2015, addresses cancer prevention goals focused on reducing the cancer burden in Wyoming. The Consortium's website provides a single repository for state and national resources and links to support this goal. Please visit [www.fightcancerwy.com](http://www.fightcancerwy.com) for more information.

### **Wyoming Cancer Surveillance Program**

The Wyoming Cancer Surveillance Program (WCSP) is a statewide population-based cancer registry. The WCSP's mission is to maintain a nationally comparable population-based cancer incidence, follow-up, treatment and mortality monitoring system that collects, analyzes and disseminates information on all new cancer cases in Wyoming. The program's goal is to provide high quality cancer data that will contribute to the improvement of diagnoses, treatment, and survival of all cancer patients. <http://www.health.wyo.gov/PHSD/wcsp/index.html>

### **Stupid Cancer**

Stupid Cancer is the largest charity that comprehensively addresses young adult cancer through advocacy, research, support, outreach, awareness, mobile health and social media. Its innovative, award-winning and evidence-based programs and services serve as a global bullhorn to propel the young adult cancer movement forward.

<http://stupidcancer.org/index.shtml>

For more information about the Stupid Cancer Wyoming Chapter, the Wyoming Comprehensive Cancer Control Consortium, or if you are a young adult cancer survivor who would like to get involved, please contact Julie Tarbuck or Jessica Perez at 307.777.7362 or via email at [julie.tarbuck1@wyo.gov](mailto:julie.tarbuck1@wyo.gov) or [jessica.perez@wyo.gov](mailto:jessica.perez@wyo.gov) .